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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,359

Applicant(s)

DEVLIN ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ 2/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6, 8, 14-19, 21-23, 25, and 27-31 of copending Application No. 10/693,197. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Copending 10/693,197 discloses additive concentrate comprising about 15% to about 40% extreme pressure compound comprising a sulfur-containing compound, about 10% to about 40% antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, about 2 to about 25% friction modifying compound comprising an alkylene amine, about 15 to about 60% dispersant compound, and minor amount of diluent. Copending 10/693,197 also discloses composition comprising about 0.5% to about 2.5% extreme pressure compound comprising a sulfur-containing compound such as sulfurized olefin or polysulfide, about 0.2% to about 2% antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, about 0.1% to about 1% friction modifying compound comprising an alkylene amine, about 0.5 to about 3.5% dispersant compound, and major amount of base oil wherein the base oil has viscosity in the range of SAE 50 to SAE 250 or SAE 70W to SAE 140. There is also disclosed method for making the composition, lubed gear box comprising a gear lubricated with the composition, wind turbine gear assembly lubricated with the composition, and a method of lubricating a wind turbine gear assembly.

The difference between copending 10/693,197 and the present claimed invention is (a) copending claims require dispersant while present claims are silent with respect to dispersant, (b)

no disclosure in copending claims of load carrying capacity enhancing combination of (i) hydrocarbylamine compound and (ii) alkylphosphorothioate, (c) the amounts of components comprising the concentrate, and (d) kinematic viscosity of the composition.

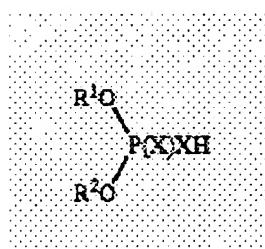
With respect to difference (a), while there is no requirement in the present claims of a dispersant, in light of the open language of the present claims, i.e. "comprising", it is clear that the present claims are open to the inclusion of additional ingredients including dispersant as required in copending 10/693,197 and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

With respect to difference (b), while there is no explicit disclosure in copending 10/693,197 of load carrying capacity enhancing combination of (i) hydrocarbylamine compound and (ii) alkylphosphorothioate as presently claimed, it is noted that the copending claims disclose the use of antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid.

Applicants' attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to

page 7, lines 5-20, page 8, lines 28-30, page 9, lines 1-18, and page 10, lines 29-31 of copending 10/693,197 which discloses that the oil-soluble amine salt of phosphoric acid is formed from combination of amine such as polyamine including N-coco-1,3-diaminopropane or N-tallow-1,3-diaminopropane and phosphoric acid ester of the formula:



where R^1 is hydrogen or hydrocarbyl group, R^2 is hydrocarbyl group, and X is oxygen or sulfur. Thus, the composition or concentrate comprises both amine and phosphoric acid ester which upon blending of the composition or concentrate ingredients leads to formation of oil-soluble amine salt of phosphoric acid.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art that the concentrate and composition of copending 10/693,197 each comprise both hydrocarbyl amine, i.e. N-coco-1,3-diaminopropane or N-tallow-1,3-diaminopropane, and alkylphosphorothioate (as seen in the above formula) as presently claimed and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

With respect to difference (c), it is noted that while the amounts of extreme pressure compound comprising a sulfur-containing compound, antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, and friction

Art Unit: 1714

modifying compound disclosed in the copending claims are not identical to those presently claimed, it is noted that the amounts of each component clearly overlap those presently claimed. As set forth in MPEP 2144.05, in the case where the claimed range “overlap or lie inside ranges disclosed by the prior art”, a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use amounts of sulfur-containing compound, antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, and friction modifying compound, including those presently claimed, in order to control the wear resistance and friction properties of the concentrate, and thereby arrive at the claimed invention from the copending one.

With respect to difference (d), it is noted that the copending claims are silent with respect to the kinematic viscosity of the composition.

On the one hand, given that the copending composition utilizes same type and amount of ingredients as presently claimed including major amount of base oil which possesses same viscosity as presently claimed, it is clear that the composition of the copending composition would inherently possess kinematic viscosity as presently claimed, and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

On the other hand, applicants' attention is drawn to MPEP 804 where it is disclosed that “the specification can always be used as a dictionary to learn the meaning of a term in a patent claim.” *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the

specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438,164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to page 20, lines 20-23 of copending 10/693,197 which discloses that the composition possesses kinematic viscosity of at least 12 cSt at 100 °C.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art that the composition of copending 10/693,197 does in fact possess kinematic viscosity as presently claimed and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

3. Claims 7 and 14 are objected to because of the following informalities:

It is advised that in line 3 of each claim after “olefin”, the “,” is removed in order that each claim recite proper Markush language.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6, 13, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claim 6 recites that the additive concentrate comprises “minor amount of diluent oil”. The scope of the claim is confusing because it is not clear what is meant by “minor” or what amounts of diluent oil this encompasses.

(b) Claim 13 recites that the composition comprises “major amount of base oil”. The scope of the claim is confusing because it is not clear what is meant by “major” or what amounts of base oil this encompasses.

(c) Claim 15 recites that the composition has kinematic viscosity of “at least 12 cSt at 100 EC”. The scope of the claims is confusing because it is not clear what “100 EC” is. Should this read “100 °C”?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

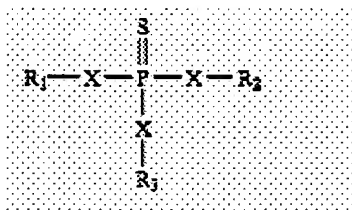
7. Claims 1, 4-5, 7-12, 14-15, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 620268 taken in view of the evidence given in EP 531585.

EP 620268 discloses gear oil composition for gear box wherein the composition comprises major amount of base oil, 0.1-6% sulfur-containing antiwear and/or extreme pressure agent such as sulfurized polyolefin or polysulfide such as dinonyl polysulfide, 0.1-3% phosphorous-containing and nitrogen-containing amine salt of partial ester of thiophosphoric acid of the form $(HX^1)(HX^2)(HX^3)PX^4$ wherein each of X^1 to X^4 is oxygen or sulfur, 0-2% free amine, 0-3% trihydrocarbyl dithiophosphate, 0-3% friction modifier, and overbased alkali or alkaline earth metal carboxylate, sulfonate, or phenate which also functions as friction modifier. For specific examples of free amine EP 620268 refers to EP 531585 which discloses that the amine includes hydrocarbyl amine such as alkyl amine. Attention is drawn to example 2 of EP 620268 which discloses composition comprising base oil and 9.33% mineral oil concentrate comprising 6.26% trihydrocarbyl dithiophosphate, 20.83% diluent oil, 44% sulfurized isobutylene, 7.8% aliphatic primary monoamine, and 0.15% overbased calcium sulfurized alkyl phenate, i.e. friction modifier. There is also disclosed method for making the composition (page 2, lines 20-28 and 34-38, page 3, lines 4 and 31-32, page 3, line 54-page 4, line 10, page 4, lines 46-52, page 6, lines 1-33, page 7, lines 8, 28-40, and 48-54). There is no disclosure of the kinematic viscosity of the composition, however, given that EP 620268 discloses composition as presently claimed including using major amount of base oil that possesses kinematic viscosity of 7-24 cSt, it is clear that the composition of EP 620268 would inherently possesses kinematic viscosity as presently claimed.

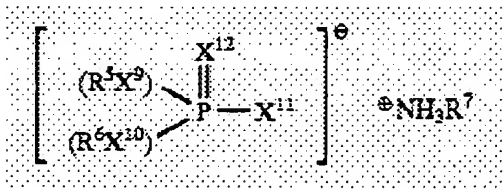
In light of the above, it is clear that EP 620268 anticipates the present claims.

8. Claims 1, 4-8, and 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Norman et al. (U.S. 5,942,470).

Norman et al. disclose additive concentrate comprising 20-80%, preferably, 35-60% sulfur-containing extreme pressure or antiwear agent such as sulfurized olefin or polysulfide of the formula $R-S_x-R^1$ where R and R^1 are each hydrocarbyl group containing 3 to 18 carbon atoms, 10-25%, preferably, 5-10%, friction modifier, 0-30%, preferably, 10-25%, O,O-dihydrocarbyl-S-hydrocarbyl phosphorothionate of the formula:



where R_1 - R_3 are each hydrocarbyl groups comprising up to 24 carbon atoms and X is oxygen or sulfur, 1-15%, preferably, 5-10% amine salt of one or more partial esters of one or more acids of phosphorous of the formula:



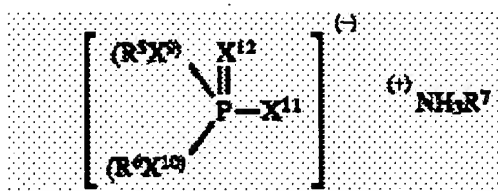
where R^5 - R^7 are each hydrocarbyl group and X^9 - X^{12} are each oxygen or sulfur which corresponds to the presently claimed combination of hydrocarbyl amine and alkylphosphorothioate and includes, for instance, octylamine salt of O-dibutylthiophosphoric acid, and remainder diluent. There is also disclosed composition comprising major amount of base oil possessing viscosity of SAE 50 to SAE 250, preferably SAE 70W to SAE 140, 2-4% sulfur containing extreme pressure or antiwear agent, 0.3-1% amine salt of one or more partial esters of one or more acids of phosphorous, 0.2-1% friction modifier, and 0.75-1.5% O,O-dihydrocarbyl-S-hydrocarbyl phosphorothionate. There is also disclosed method of making the composition. It is disclosed that the composition is used as gear oil for manual transmission (col.1, lines 10-15 and 45-67, col.2, lines 47-54, col.3, lines 30-48, col.4, lines 13-23, col.11, lines 1-9 and 38-40, col.15, line 66-col.16, line 6, col.16, lines 34-45, col.16, line 65-col.17, line 16, col.18, lines 16-20 and 39-47, col.18, line 61-col.19, line 30, and col.22, lines 49-61). There is no disclosure of the kinematic viscosity of the composition, however, given that Norman et al. discloses composition comprising same types and amount of ingredients as presently claimed inducing major amount of base oil possessing viscosity as presently claimed, it is clear that the composition of Norman et al. would inherently possess kinematic viscosity as presently claimed.

In light of the above, it is clear that Norman et al. anticipates the present claims.

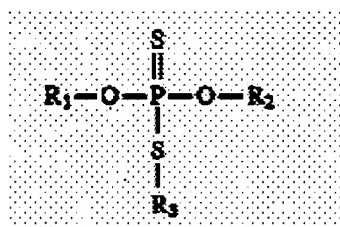
9. Claims 1, 4-5, 7-8, 11-12, 14, and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Walters et al. (U.S. 5,700,764).

Art Unit: 1714

Walters et al. disclose gear oil composition for gear box where the composition comprises 0.6-3% sulfur-containing antiwear and/or extreme pressure agent such as sulfurized olefin or polysulfide such as dinonyl polysulfide, 0.04-0.25% phosphorous-containing antiwear and/or extreme pressure agent that is amine salt of partial ester of thiophosphoric acid of the formula:



where R^5 - R^7 are each hydrocarbyl group and X^9 - X^{12} are each oxygen or sulfur, 0.2-0.8% amine such as alkylamine, 0.1-2% trihydrocarbyl dithiophosphate of the formula:



wherein R_1 - R_3 are each hydrocarbyl group of up to 18 carbon atoms, friction modifier, and major amount of base oil possessing viscosity of SAE 75W to SAE 90. There is also disclosed method of making the composition. There is also disclosed concentrate comprising diluent oil, the sulfur-containing antiwear and/or extreme pressure agent, the phosphorous-containing antiwear and/or

extreme pressure agent, the amine such as alkylamine, and the trihydrocarbyl dithiophosphate (col.1, lines 3-5, col.2, lines 1-3 and 32-44, col.2, line 66-col.3, line 17, col.3, lines 45-51 and 63-67, col.4, lines 1-19, 23-25, 29, and 34-41, col.5, lines 43-48, col.6, lines 21-42, col.7, lines 4-32, col.9, lines 7-18, col.19, lines 55-58, col.2, lines 1-13, col.23, lines 35-42, and col.24, lines 15-18). There is no disclosure of the kinematic viscosity of the composition, however, given that Walters et al. discloses composition as presently claimed including using major amount of base oil that possesses viscosity as presently claimed, it is clear that the composition of Walters et al. would inherently possess kinematic viscosity as presently claimed.

In light of the above, it is clear that Walters et al. anticipate the present claims.

10. Claims 1, 4-8, and 11-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Barber et al. (U.S. 5,126,064).

Barber et al. disclose lubricant for lubrication of gears wherein the lubricant comprises base oil possessing viscosity of SAE 75W to SAE 90, 1-20% sulfur-containing extreme pressure or anti-wear agent that includes sulfurized olefin, polysulfide of the formula $R-S_x-R'$ wherein R and R' are each hydrocarbyl groups possessing 3 to 18 carbon atoms and x is 3-12, and amine salt of fully or partially esterified hydrocarbyl esters of mono-, di-, tri-, or tetrathiophosphoric acid comprising hydrocarbyl group of 2-30 carbon atoms, 0.1-2% amine such as alkylamine, and friction modifier. There is also disclosed method of making the lubricant. It is disclosed that the lubricant is supplied as either a finished lubricant ready for use or in the form of an additive concentrate which requires dilution with base lubricating fluid before use. The concentrate comprises 5-80% sulfur-containing extreme pressure or anti-wear agent, 0.05-20% amine, 0.25-

15% friction modifier, and minor amount of diluent oil. It is disclosed that the composition comprises base oil and, for instance, 8% of the concentrate (col.1, lines 4-6 and 51-54, col.2, lines 38-45, col.3, lines 1-11, 16, and 28-66, col.4, lines 22-35, col.6, lines 15-18, col.6, line 23- col.7, line 14, and col.7, lines 21-40 and 52-53). There is no disclosure of the kinematic viscosity of the composition, however, given that Barber et al. discloses composition as presently claimed including using major amount of base oil that possesses viscosity as presently claimed, it is clear that the composition of Barber et al. would inherently possesses kinematic viscosity as presently claimed.

In light of the above, it is clear that Barber et al. anticipate the present claims.

11. Claims 1-5, 7-12, and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Cook et al. (U.S. 2002/0119895).

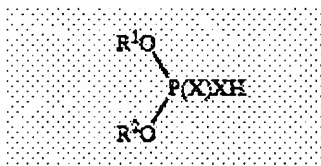
Cook et al. disclose composition used as gear lubricant and in turbines wherein the composition comprises polysulfide, dithiocarbamate, i.e. friction modifier, and amine salt of dithiophosphoric acid having the formula $(RO)_2PSSH$ wherein each R is hydrocarbyl group of 3-30 carbon atoms wherein the amine includes alkyl amine, N-coco-1,3-diaminopropane, or N-tallow-1,3-diamonopropane and which corresponds to the presently claimed combination of hydrocarbyl amine and alkylphosphorothioate. It is disclosed that the composition is used as either a concentrate wherein the above is combined with minor amount of diluent or as a lubricant wherein the above is combined with major amount of base oil possessing viscosity of SAE 75W-140. There is also a disclosure of method for making the lubricant (paragraphs 1, 3, 77, 89, 93, 121, 123, 129, 130, 141, 173-175, 177, and 179). There is no disclosure of the

kinematic viscosity of the composition, however, given that Cook et al. discloses composition as presently claimed including using major amount of base oil that possesses viscosity as presently claimed, it is clear that the composition of Cook et al. would inherently possess kinematic viscosity as presently claimed.

In light of the above, it is clear that Cook et al. anticipate the present claims.

12. Claims 1-5, 7-12, and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Milner et al. (U.S. 6,844,300).

Milner et al. disclose gear oil additive concentrate comprising diluent oil, sulfur-containing extreme pressure agent, phosphorous-containing anti-wear compound that is amine salt of phosphoric acid ester of the formula:



where R^1 is hydrogen or hydrocarbyl group having 3 to 30 carbon atoms, R^2 is hydrocarbyl group having 3 to 30 carbon atoms, and X is oxygen or sulfur and wherein the compound is formed by reacting amine such as N-coco-1,3-diaminopropane with phosphoric acid ester, and friction modifier. There is also disclosed gear oil comprising the sulfur-containing extreme pressure agent, the phosphorous-containing anti-wear compound, the friction modifier, and 80-98% base oil possessing viscosity of SAE 50 to SAE 250, preferably SAE 70W to SAE 140. It is

disclosed that the gear oil is used in lubricated gear box. There is also disclosed method of manufacturing the gear oil by blending the above components (col.1, lines 28-32, col.3, lines 40-51 and 59-63, col.5, lines 11-20 and 48-49, col.5, line 64-col.6, line 3, col.6, lines 10-13, col.8, lines 14-31, 39-41, and 54-59, col.9, lines 13-18 and 27-31, col.10, line 7-col.11, line 10, col.11, lines 20-47, col.12, lines 19-27, 34, and 64-65, and col.13, lines 4-17). There is no disclosure of the kinematic viscosity of the composition, however, given that Milner et al. discloses composition as presently claimed including using major amount of base oil that possesses viscosity as presently claimed, it is clear that the composition of Milner et al. would inherently possesses kinematic viscosity as presently claimed.

In light of the above, it is clear that Milner et al. anticipate the present claims.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 2-3 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. (U.S. 5,942,470), Walters et al. (U.S. 5,700,764), or Barber et al. (U.S. 5,126,064) any of which in view of Cook et al. (U.S. 2002/0119895).

The disclosures with respect to Norman et al., Walters et al., and Barber et al. in paragraphs 8, 9, and 10 above are incorporated here by reference.

The difference between Norman et al., Walters et al., or Barber et al. and the present claimed invention is the requirement in the claims of specific amine.

Cook et al., which is drawn to composition for gear lubricant, disclose the use of phosphorous-containing antiwear or extreme pressure agent that is amine salt of dithiophosphoric acid wherein the amine is obtained from fatty diamine such as N-coco-1,3-diaminopropane or N-tallow-1,3-diaminopropane. Cook et al. also disclose the equivalence and

interchangeability of using such fatty diamine, as presently claimed, with using alkyl amine as disclosed by Norman et al., Walters et al., or Barber et al.

In light of the disclosure of the equivalence and interchangeability of using alkyl amine with using N-coco-1,3-diaminopropane or N-tallow-1,3-diaminopropane, it therefore would have been obvious to one of ordinary skill in the art to use N-coco-1,3-diaminopropane or N-tallow-1,3-diaminopropane as the amine in the composition of Norman et al., Walters et al., or Barber et al., and thereby arrive at the claimed invention.

16. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 620268 in view of Norman et al. (U.S. 5,942,470).

The disclosure with respect to EP 620268 in paragraph 7 above is incorporated here by reference.

The difference between EP 620268 and the present claimed invention is the requirement in the claims of viscosity of the base oil.

Norman et al. disclose the use of base oil possessing viscosity of SAE 50 to SAE 250 or SAE 70W to SAE 140 in order that the base oil is suitable for use in gear oil applications (col.18, lines 40-47).

In light of the motivation for using base oil with specific viscosity disclosed by Norman et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use base oil with such viscosity in EP 620268 in order to produce composition suitable for use in gear oil applications, and thereby arrive at the claimed invention.

Art Unit: 1714

17. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laing et al. (U.S. 4,710,100) in view of Cook et al. (U.S. 2002/0119895).

Laing et al. disclose wind turbine comprising gear assembly wherein the gear assembly requires lubricant (col.1, lines 4-6 and col.3, lines 50-52).

The difference between Laing et al. and the present claimed invention is the requirement in the present claims of specific composition.

Cook et al., which is drawn to lubricant for turbine, disclose the use of lubricant composition comprising polysulfide, dithiocarbamate, i.e. friction modifier, and amine salt of dithiophosphoric acid having the formula $(RO)_2PSSH$ wherein each R is hydrocarbyl group of 3-30 carbon atoms which corresponds to the presently claimed combination of hydrocarbyl amine and alkylphosphorothioate. It is disclosed that the composition is used as a lubricant wherein the above is combined with major amount of base oil. The motivation for using such composition is that the composition possesses good anti-wear properties (paragraphs 1, 3, 77, 89, 93, 121, 123, 129, 130, 141, 173-175, 177, and 179).

In light of the motivation for using specific lubricant disclosed by Cook et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such lubricant in the wind turbine of Laing et al. in order to produce turbine with good anti-wear properties, and thereby arrive at the claimed invention.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Walters et al. (U.S. 5,342,531) disclose lubricant composition comprising polysulfide, amine, and esterified monothiophosphoric acid, however, there is no disclosure of friction modifier as presently claimed.

Walsh (U.S. 4,584,113) disclose composition comprising sulfurized olefin, base oil, and amine, however, there is no disclosure of friction modifier or alkyl phosphorothioate as presently claimed.

Walters et al. (U.S. 5,254,272) disclose lubricant composition comprising sulfurized isobutene, polysulfide, base oil, and amine salt of dihydrocarbyl thiophosphate, however, there is no disclosure of friction modifier as presently claimed.

Vinci (U.S. 6,573,223) disclose lubricating composition comprising polysulfide, lubricating oil, and acid ester of dithiophosphoric acid, however, there is no disclosure of friction modifier or amine as presently claimed.

EP 391653 discloses lubricant composition comprising oil, sulfurized olefin, amine, and esterified thiophosphoric acid, however, friction modifier is not required.

Srinivasan et al. (U.S. 5,358,650) disclose gear oil composition comprising sulfurized olefin, polysulfide, amine salt of dihydrocarbyl ester of thiophosphoric acid, however, there is no disclosure of friction modifier as presently claimed.

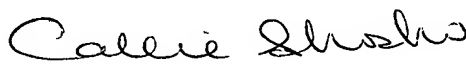
Dinsmore et al. (U.S. 3,002,014) disclose the use of S-amine O,O-dialiphatic phosphorothioate and base oil, however, however, there is no disclosure of friction modifier or concentrate as presently claimed.

Art Unit: 1714

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

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1/21/06